REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow. Claims 1-25 were rejected and Claim 13 was objected to by the Examiner. Claim 13 has been amended. No new matter has been added. Accordingly, Claims 1-25 will be pending in the present application upon entry of this Reply and Amendment.

A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

Claim Objections

On page 2 of the Office Action, Claim 13 was objected to. Claim 13 has been amended to depend from Claim 12. Reconsideration and withdrawal of the objection to Claim 13 is therefore respectfully requested.

Claim Rejections – 35 U.S.C. § 102

1. Claims 1 and 25 (Ochiai et al.)

On page 2 of the Office Action, the Examiner rejected Claims 1 and 25 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,522,148 to Ochiai et al. ("Ochiai et al.").

Claim 1 is in independent form and recites a "method for determining the amount of charge which can be drawn from a storage battery" comprising, in combination with other elements, "determining a characteristic variable for the amount of charge, the characteristic variable being derived from the relationship of at least one battery voltage value from the rise phase with respect to at least one battery voltage value from the decay phase or from the relationship of at least one battery current value from the rise phase with respect to at least one battery current value from the decay phase."

Claim 25 is in independent form and recites a "monitoring device for a storage battery" comprising, in combination with other elements, an "evaluation means" that is

"configured to determine a characteristic variable for the amount of charge, the characteristic variable being derived from the relationship of at least one battery voltage value from the rise phase with respect to at least one battery voltage value from the decay phase or from the relationship of at least one battery current value from the rise phase with respect to at least one battery current value from the decay phase."

Ochiai et al. is directed to a "State of Charge Measuring Apparatus for Battery Device" including a method, wherein a SOC is calculated by accumulating the charge and discharge current (see column 7, lines 39+).

Ochiai et al. does not identically disclose a "method for determining the amount of charge which can be drawn from a storage battery" comprising, among other elements, "determining a characteristic variable for the amount of charge, the characteristic variable being derived from the relationship of at least one battery voltage value from the rise phase with respect to at least one battery voltage value from the decay phase or from the relationship of at least one battery current value from the rise phase with respect to at least one battery current value from the decay phase" as recited in independent Claim 1. The rejection of Claim 1 over Ochiai et al. is improper. Claim 1 is patentable over Ochiai et al.

Ochiai et al. does not identically disclose a "monitoring device for a storage battery" comprising, among other elements, an "evaluation means" that is "configured to determine a characteristic variable for the amount of charge, the characteristic variable being derived from the relationship of at least one battery voltage value from the rise phase with respect to at least one battery voltage value from the decay phase or from the relationship of at least one battery current value from the rise phase with respect to at least one battery current value from the decay phase" as recited in independent Claim 25. The rejection of Claim 25 over Ochiai et al. is improper. Claim 25 is patentable over Ochiai et al.

The Applicant respectfully requests withdrawal of the rejection of Claims 1 and 25 under 35 U.S.C. § 102(e).

2. Claims 1-9, 14, and 25 (Eguchi)

On page 2 of the Office Action, the Examiner rejected Claims 1-9, 14, and 25 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,313,606 to Eguchi ("Eguchi").

Claim 1 is in independent form and recites a "method for determining the amount of charge which can be drawn from a storage battery" comprising, in combination with other elements, "determining a characteristic variable for the amount of charge, the characteristic variable being derived from the relationship of at least one battery voltage value from the rise phase with respect to at least one battery voltage value from the decay phase or from the relationship of at least one battery current value from the rise phase with respect to at least one battery current value from the decay phase." Claims 2-9 and 14 depend from independent Claim 1.

Claim 25 is in independent form and recites a "monitoring device for a storage battery" comprising, in combination with other elements, "means for measuring battery voltage values and battery current values . . . wherein the means for measuring measures at least one of battery currents and battery voltages at at least two points in time before or during a rise phase and during or after a decay phase of a charging or discharging operation; and wherein the evaluation means are configured to determine a characteristic variable for the amount of charge, the characteristic variable being derived from the relationship of at least one battery voltage value from the rise phase with respect to at least one battery voltage value from the decay phase or from the relationship of at least one battery current value from the rise phase with respect to at least one battery current value from the decay phase."

Eguchi is directed to a "Method and Apparatus for Detecting Battery Capacity" including discloses a method for calculating the battery capacity based on the relationship between the voltage and the capacity of the battery (see column 4, line 19-20).

Eguchi does not identically disclose a "method for determining the amount of charge which can be drawn from a storage battery" comprising, among other elements, a "determining a characteristic variable for the amount of charge, the characteristic variable being derived from the relationship of at least one battery voltage value from the rise phase with respect to at least one battery voltage value from the decay phase or from the

relationship of at least one battery current value from the rise phase with respect to at least one battery current value from the decay phase" as recited in independent Claim 1. The rejection of Claim 1 over Eguchi is improper. Claim 1 is patentable over Eguchi.

Dependent Claims 2-9 and 14, which depend from independent Claim 1, are also patentable. See 35 U.S.C. § 112 ¶ 4.

Eguchi does not identically disclose a "monitoring device for a storage battery" comprising, in combination with other elements, "means for measuring battery voltage values and battery current values . . . wherein the means for measuring measures at least one of battery currents and battery voltages at at least two points in time before or during a rise phase and during or after a decay phase of a charging or discharging operation; and wherein the evaluation means are configured to determine a characteristic variable for the amount of charge, the characteristic variable being derived from the relationship of at least one battery voltage value from the rise phase with respect to at least one battery voltage value from the decay phase or from the relationship of at least one battery current value from the rise phase with respect to at least one battery current value from the decay phase," as recited in independent Claim 25. The rejection of Claim 25 over Eguchi is improper. Claim 25 is patentable over Eguchi.

The Applicant respectfully requests withdrawal of the rejection of Claims 1-9, 14, and 25 under 35 U.S.C. § 102(e).

Claim Rejections – 35 U.S.C. § 103

1. Claims 10-11 (Ochiai et al. and Meyer)

On page 4 of the Office Action the Examiner rejected Claims 10-11 as being obvious over Ochiai et al. in view of U.S. Patent No. 6,472,875 to Meyer ("Meyer") under 35 U.S.C. § 103(a).

Claims 10-11 depend from independent Claim 1, which recites a "method for determining the amount of charge which can be drawn from a storage battery" comprising, in combination with other elements, "determining a characteristic variable for the amount of

charge, the characteristic variable being derived from the relationship of at least one battery voltage value from the rise phase with respect to at least one battery voltage value from the decay phase or from the relationship of at least one battery current value from the rise phase with respect to at least one battery current value from the decay phase."

The "method for determining the amount of charge which can be drawn from a storage battery" recited in independent Claim 1 would not have been obvious in view of Ochiai et al., alone or in any proper combination with Meyer under 35 U.S.C. § 103(a). Ochiai et al. alone or in any proper combination with Meyer does not disclose, teach or suggest a "method for determining the amount of charge which can be drawn from a storage battery" comprising, in combination with other elements, "determining a characteristic variable for the amount of charge, the characteristic variable being derived from the relationship of at least one battery voltage value from the rise phase with respect to at least one battery voltage value from the decay phase or from the relationship of at least one battery current value from the rise phase with respect to at least one battery current value from the decay phase."

To transform the "State of Charge Measuring Apparatus for Battery Device" of Ochiai et al. and the "Method for Detecting a Motor Vehicle Battery Failure" of Meyer into a "method for determining the amount of charge which can be drawn from a storage battery" (as recited in Claim 1) would require still further modification, and such modification is taught only by the Applicants' own disclosure. The suggestion to make the combination of Ochiai et al. and Meyer has been taken from the Applicants' own specification (using hindsight), which is improper.

The "method for determining the amount of charge which can be drawn from a storage battery" recited in independent Claim 1 (and in dependent Claims 10-11), considered as a whole, would not have been obvious in view of Ochiai et al. and/or Meyer. The rejection of Claims 10-11 over Ochiai et al. in view of Meyer under 35 U.S.C. § 103(a) is improper. Therefore, Claims 10-11 are patentable over Ochiai et al. in view of Meyer.

The Applicant respectfully requests withdrawal of the rejection of Claims 10-11 under 35 U.S.C. § 103(a).

2. Claims 12-13 (Ochiai et al. and Sakai)

On page 5 of the Office Action the Examiner rejected Claims 12-13 as being obvious over Ochiai et al. in view of U.S. Patent No. 6,608,482 to Sakai et al. ("Sakai et al.") under 35 U.S.C. § 103(a).

Claims 12-13 depend from independent Claim 1, which recites a "method for determining the amount of charge which can be drawn from a storage battery" comprising, in combination with other elements, "determining a characteristic variable for the amount of charge, the characteristic variable being derived from the relationship of at least one battery voltage value from the rise phase with respect to at least one battery voltage value from the decay phase or from the relationship of at least one battery current value from the rise phase with respect to at least one battery current value from the decay phase."

The "method for determining the amount of charge which can be drawn from a storage battery" recited in independent Claim 1 would not have been obvious in view of Ochiai et al., alone or in any proper combination with Sakai et al. under 35 U.S.C. § 103(a). Ochiai et al. alone or in any proper combination with Sakai et al. does not disclose, teach or suggest a "method for determining the amount of charge which can be drawn from a storage battery" comprising, in combination with other elements, "determining a characteristic variable for the amount of charge, the characteristic variable being derived from the relationship of at least one battery voltage value from the rise phase with respect to at least one battery voltage value from the decay phase or from the relationship of at least one battery current value from the rise phase with respect to at least one battery current value from the decay phase."

To transform the "State of Charge Measuring Apparatus for Battery Device" of Ochiai et al. and the "Battery Control Method for Hybrid Vehicle" of Sakai et al. into a "method for determining the amount of charge which can be drawn from a storage battery" (as recited in Claim 1) would require still further modification, and such modification is taught only by the

Applicants' own disclosure. The suggestion to make the combination of Ochiai et al. and Sakai et al. has been taken from the Applicants' own specification (using hindsight), which is improper.

The "method for determining the amount of charge which can be drawn from a storage battery" recited in independent Claim 1 (and in dependent Claims 12-13), considered as a whole, would not have been obvious in view of Ochiai et al. and/or Sakai et al. The rejection of Claims 12-13 over Ochiai et al. in view of Sakai et al. under 35 U.S.C. § 103(a) is improper. Therefore, Claims 12-13 are patentable over Ochiai et al. in view of Sakai et al.

The Applicant respectfully requests withdrawal of the rejection of Claims 12-13 under 35 U.S.C. § 103(a).

3. Claims 14-17 and 19-23 (Ochiai et al. and Suzuki)

On page 5 of the Office Action the Examiner rejected Claims 14-17 and 19-23 as being obvious over Ochiai et al. in view of U.S. Patent No. 6,507,194 to Suzuki ("Suzuki") under 35 U.S.C. § 103(a).

Claims 14-17 and 19-23 depend from independent Claim 1, which recites a "method for determining the amount of charge which can be drawn from a storage battery" comprising, in combination with other elements, "determining a characteristic variable for the amount of charge, the characteristic variable being derived from the relationship of at least one battery voltage value from the rise phase with respect to at least one battery voltage value from the decay phase or from the relationship of at least one battery current value from the rise phase with respect to at least one battery current value from the decay phase."

The "method for determining the amount of charge which can be drawn from a storage battery" recited in independent Claim 1 would not have been obvious in view of Ochiai et al., alone or in any proper combination with Suzuki under 35 U.S.C. § 103(a). Ochiai et al. alone or in any proper combination with Suzuki does not disclose, teach or suggest a "method for determining the amount of charge which can be drawn from a storage battery" comprising, in combination with other elements, "determining a characteristic variable for the amount of charge, the characteristic variable being derived from the

relationship of at least one battery voltage value from the rise phase with respect to at least one battery voltage value from the decay phase or from the relationship of at least one battery current value from the rise phase with respect to at least one battery current value from the decay phase."

To transform the "State of Charge Measuring Apparatus for Battery Device" of Ochiai et al. and the "Method of Calculating Remaining Battery Capacity" of Suzuki into a "method for determining the amount of charge which can be drawn from a storage battery" (as recited in Claim 1) would require still further modification, and such modification is taught only by the Applicants' own disclosure. The suggestion to make the combination of Ochiai et al. and Suzuki has been taken from the Applicants' own specification (using hindsight), which is improper.

The "method for determining the amount of charge which can be drawn from a storage battery" recited in independent Claim 1 (and in dependent Claims 14-17 and 19-23), considered as a whole, would not have been obvious in view of Ochiai et al. and/or Suzuki. The rejection of Claims 14-17 and 19-23 over Ochiai et al. in view of Suzuki under 35 U.S.C. § 103(a) is improper. Therefore, Claims 14-17 and 19-23 are patentable over Ochiai et al. in view of Suzuki.

The Applicant respectfully requests withdrawal of the rejection of Claims 14-17 and 19-23 under 35 U.S.C. § 103(a).

4. Claim 18 (Eguchi)

On page 6 of the Office Action the Examiner rejected Claim 18 as being obvious over Eguchi under 35 U.S.C. § 103(a).

Claim 18 depends from independent Claim 1, which recites a "method for determining the amount of charge which can be drawn from a storage battery" comprising, in combination with other elements, "determining a characteristic variable for the amount of charge, the characteristic variable being derived from the relationship of at least one battery voltage value from the rise phase with respect to at least one battery voltage value from the

decay phase or from the relationship of at least one battery current value from the rise phase with respect to at least one battery current value from the decay phase."

The "method for determining the amount of charge which can be drawn from a storage battery" recited in independent Claim 1 would not have been obvious in view of Eguchi. Eguchi does not disclose, teach or suggest a "method for determining the amount of charge which can be drawn from a storage battery" comprising, in combination with other elements, "determining a characteristic variable for the amount of charge, the characteristic variable being derived from the relationship of at least one battery voltage value from the rise phase with respect to at least one battery voltage value from the decay phase or from the relationship of at least one battery current value from the rise phase with respect to at least one battery current value from the decay phase."

To transform the "State of Charge Measuring Apparatus for Battery Device" of Eguchi into a "method for determining the amount of charge which can be drawn from a storage battery" (as recited in Claim 1) would require still further modification, and such modification is taught only by the Applicants' own disclosure.

The "method for determining the amount of charge which can be drawn from a storage battery" recited in independent Claim 1 (and in dependent Claim 18), considered as a whole, would not have been obvious in view of Eguchi. The rejection of Claim 18 over Eguchi under 35 U.S.C. § 103(a) is improper. Therefore, Claim 18 is patentable over Eguchi.

The Applicant respectfully requests withdrawal of the rejection of Claim 18 under 35 U.S.C. § 103(a).

5. Claim 24 (Ochiai et al. and Dougherty)

On page 6 of the Office Action the Examiner rejected Claim 24 as being obvious over Ochiai et al. in view of U.S. Patent Application Publication No. 2003/0236656 to Dougherty ("Dougherty") under 35 U.S.C. § 103(a).

Claim 24 depends from independent Claim 1, which recites a "method for determining the amount of charge which can be drawn from a storage battery" comprising, in

combination with other elements, "determining a characteristic variable for the amount of charge, the characteristic variable being derived from the relationship of at least one battery voltage value from the rise phase with respect to at least one battery voltage value from the decay phase or from the relationship of at least one battery current value from the rise phase with respect to at least one battery current value from the decay phase."

The "method for determining the amount of charge which can be drawn from a storage battery" recited in independent Claim 1 would not have been obvious in view of Ochiai et al., alone or in any proper combination with Dougherty under 35 U.S.C. § 103(a). Ochiai et al. alone or in any proper combination with Dougherty does not disclose, teach or suggest a "method for determining the amount of charge which can be drawn from a storage battery" comprising, in combination with other elements, "determining a characteristic variable for the amount of charge, the characteristic variable being derived from the relationship of at least one battery voltage value from the rise phase with respect to at least one battery voltage value from the decay phase or from the relationship of at least one battery current value from the rise phase with respect to at least one battery current value from the decay phase."

To transform the "State of Charge Measuring Apparatus for Battery Device" of Ochiai et al. and the "Battery Characterization System" of Dougherty into a "method for determining the amount of charge which can be drawn from a storage battery" (as recited in Claim 1) would require still further modification, and such modification is taught only by the Applicants' own disclosure. The suggestion to make the combination of Ochiai et al. and Dougherty has been taken from the Applicants' own specification (using hindsight), which is improper.

The "method for determining the amount of charge which can be drawn from a storage battery" recited in independent Claim 1 (and in dependent Claim 24), considered as a whole, would not have been obvious in view of Ochiai et al. and/or Dougherty. The rejection of Claim 24 over Ochiai et al. in view of Dougherty under 35 U.S.C. § 103(a) is improper. Therefore, Claim 24 is patentable over Ochiai et al. in view of Dougherty.

The Applicant respectfully requests withdrawal of the rejection of Claim 24 under 35 U.S.C. § 103(a).

* * *

It is submitted that each outstanding objection and rejection to the Application has been overcome, and that the Application is in a condition for allowance. The Applicant requests consideration and allowance of all pending Claims 1-25.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 06-1447. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 06-1447. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 06-1447.

Respectfully submitted,

Date 7/1/2005 By _____

FOLEY & LARDNER LLP
Customer Number: 26371
Telephone: (414) 297-5564
Facsimile: (414) 297-4900

Marcus W. Sprow
Attorney for Applicant
Registration No. 48,580